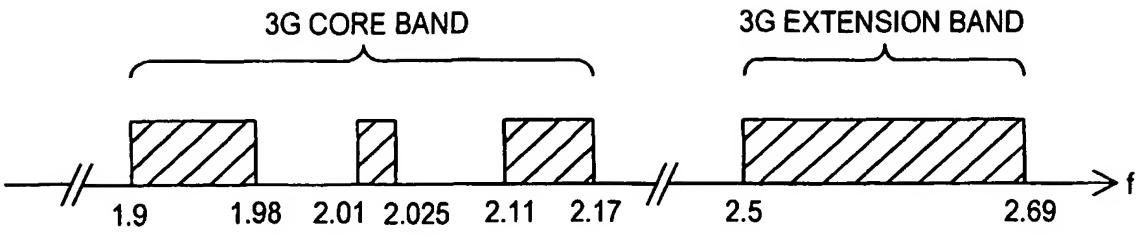

Fig.1 *(Not to Scale)*

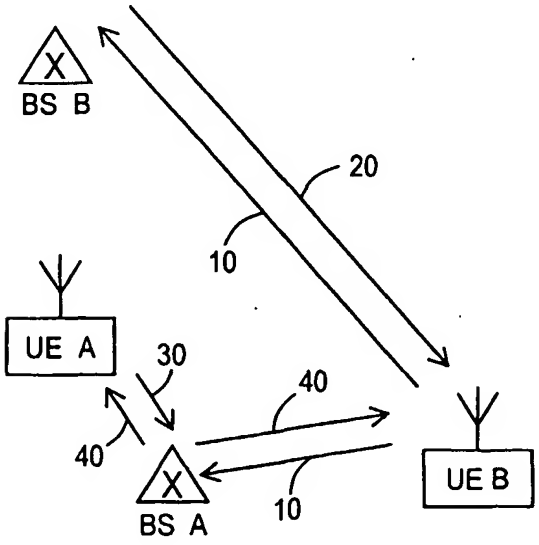

Fig.2

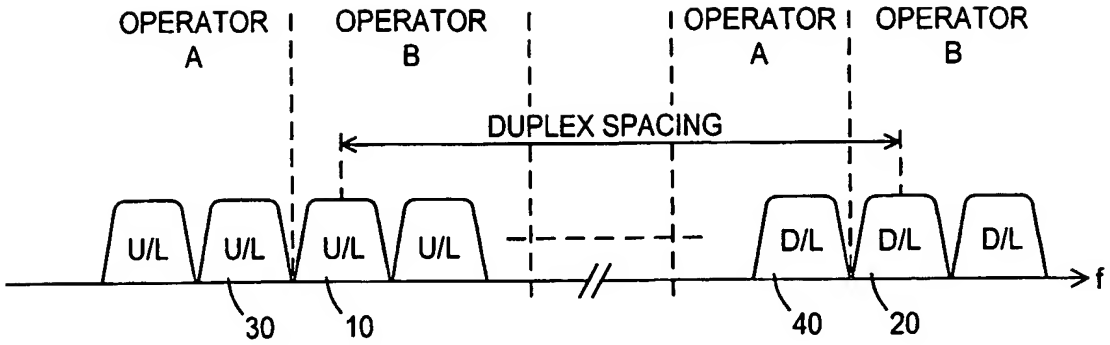
OPERATOR A
OPERATOR B
OPERATOR A
OPERATOR B
DUPLEX SPACING
U/L
U/L
U/L
U/L
D/L
D/L
D/L
f
30
10
40
20

Fig.3

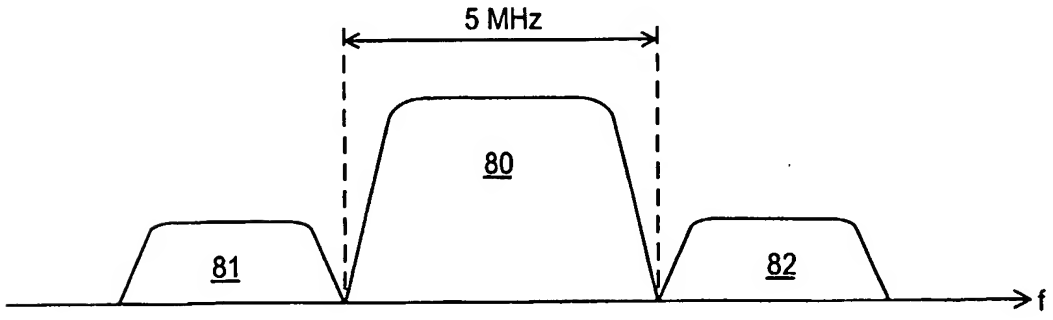
5 MHz
80
81
82
f

Fig.5

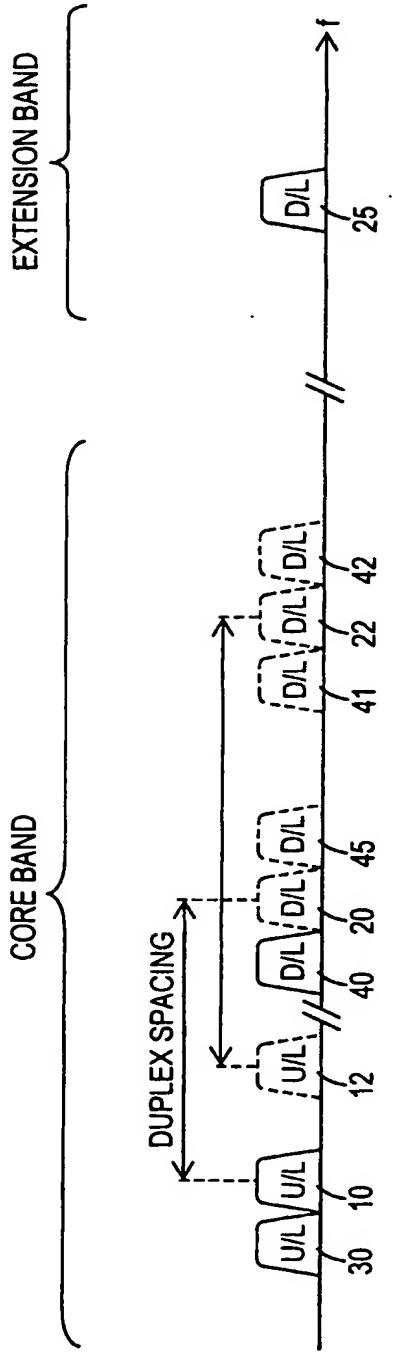
EXTENSION BAND
CORE BAND
DUPLEX SPACING
f
D/L
U/L
25
42
22
41
45
20
40
12
10
30

Fig. 6

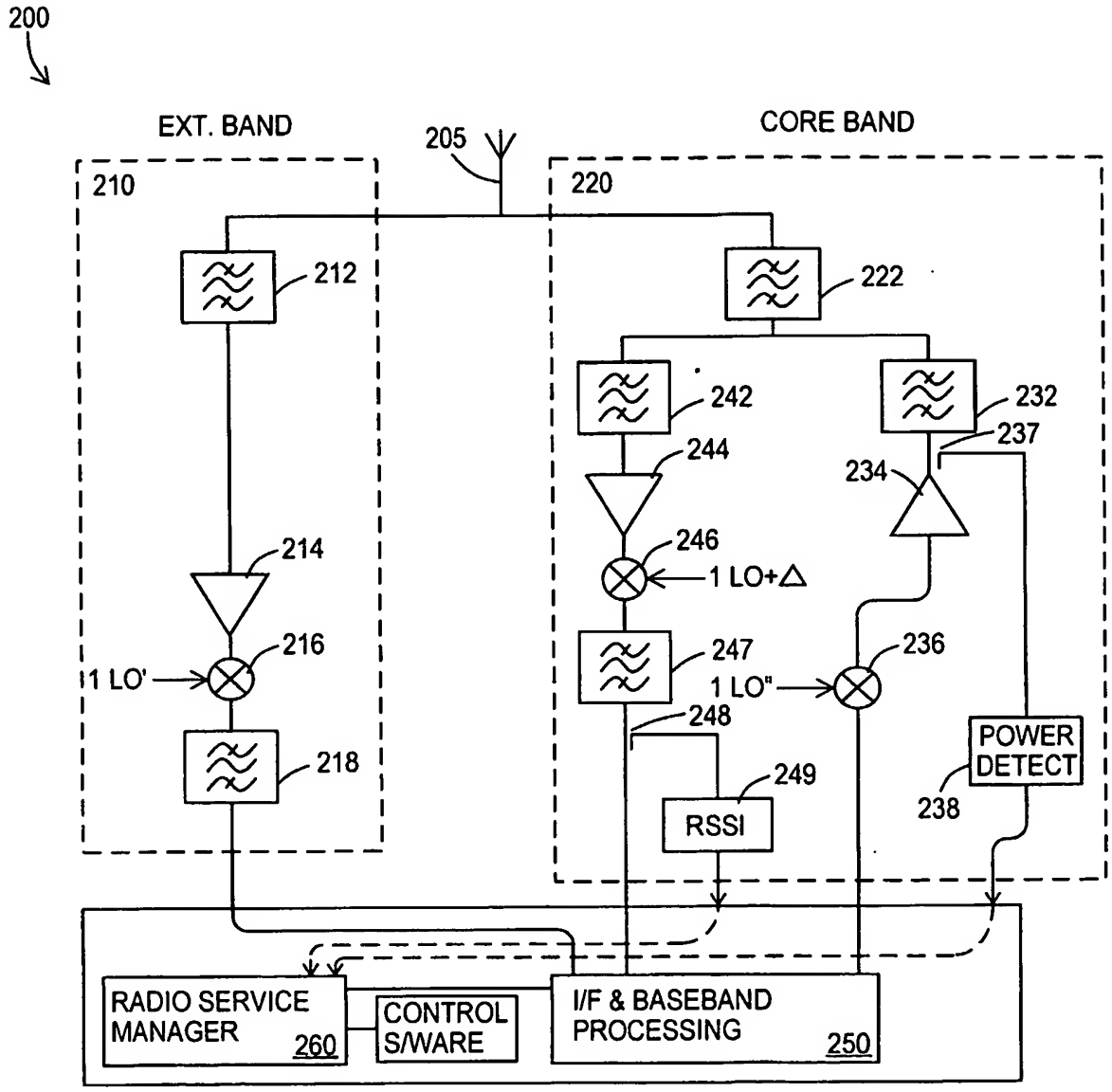
200
EXT. BAND
205
CORE BAND
210
220
212
222
242
232
237
244
234
214
246
1 LO+Δ
216
1 LO'
247
236
1 LO"
248
218
249
POWER DETECT
238
RSSI
RADIO SERVICE MANAGER
260
CONTROL S/WARE
I/F & BASEBAND PROCESSING
250

Fig. 7

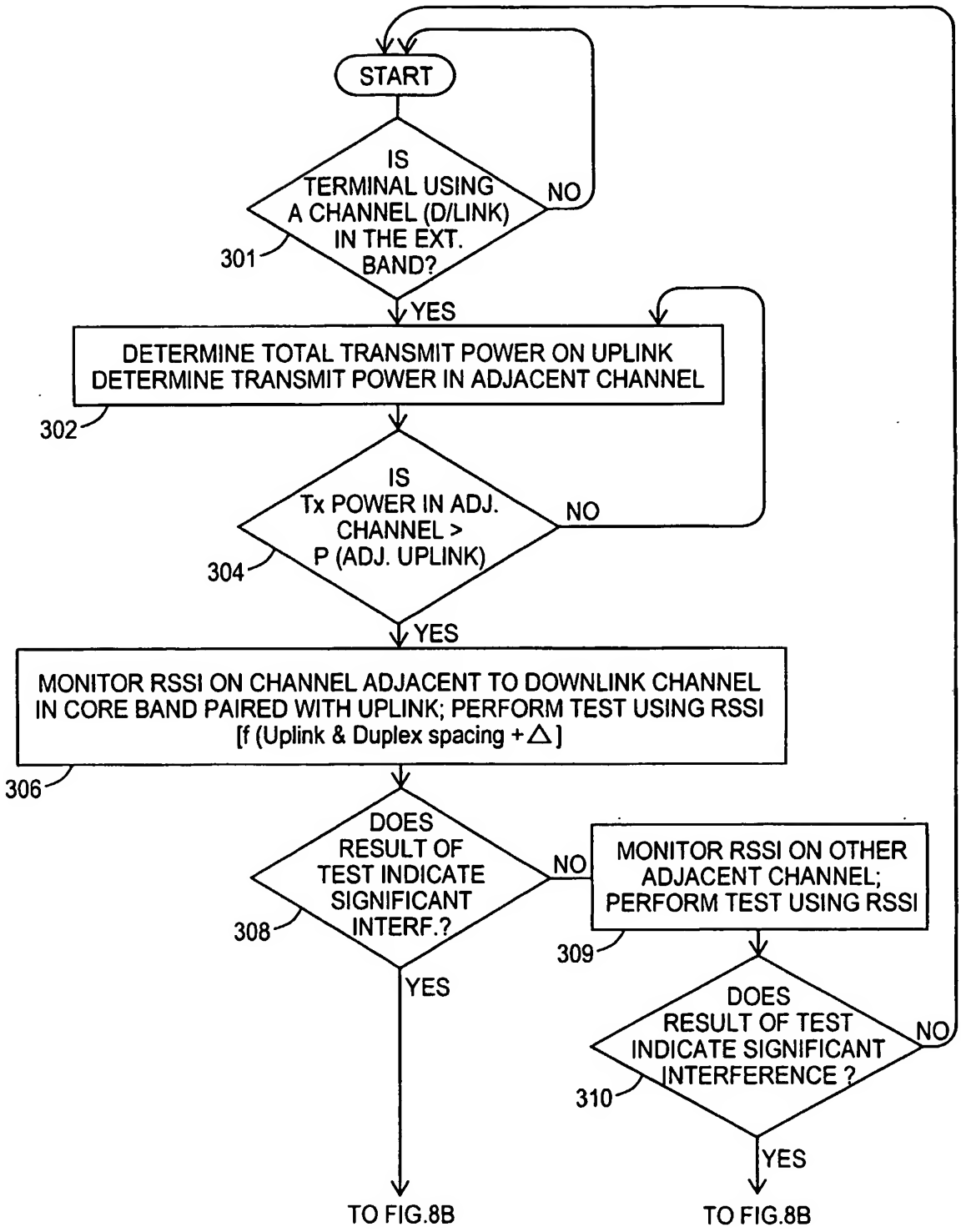
START
IS TERMINAL USING A CHANNEL (D/LINK) IN THE EXT. BAND?
NO
301
YES
DETERMINE TOTAL TRANSMIT POWER ON UPLINK
DETERMINE TRANSMIT POWER IN ADJACENT CHANNEL
302
IS Tx POWER IN ADJ. CHANNEL > P (ADJ. UPLINK)
NO
304
YES
MONITOR RSSI ON CHANNEL ADJACENT TO DOWNLINK CHANNEL IN CORE BAND PAIRED WITH UPLINK; PERFORM TEST USING RSSI [f (Uplink & Duplex spacing + Δ]
306
DOES RESULT OF TEST INDICATE SIGNIFICANT INTERF.?
NO
308
MONITOR RSSI ON OTHER ADJACENT CHANNEL; PERFORM TEST USING RSSI
309
YES
DOES RESULT OF TEST INDICATE SIGNIFICANT INTERFERENCE ?
NO
310
YES
TO FIG.8B
TO FIG.8B

Fig.8A

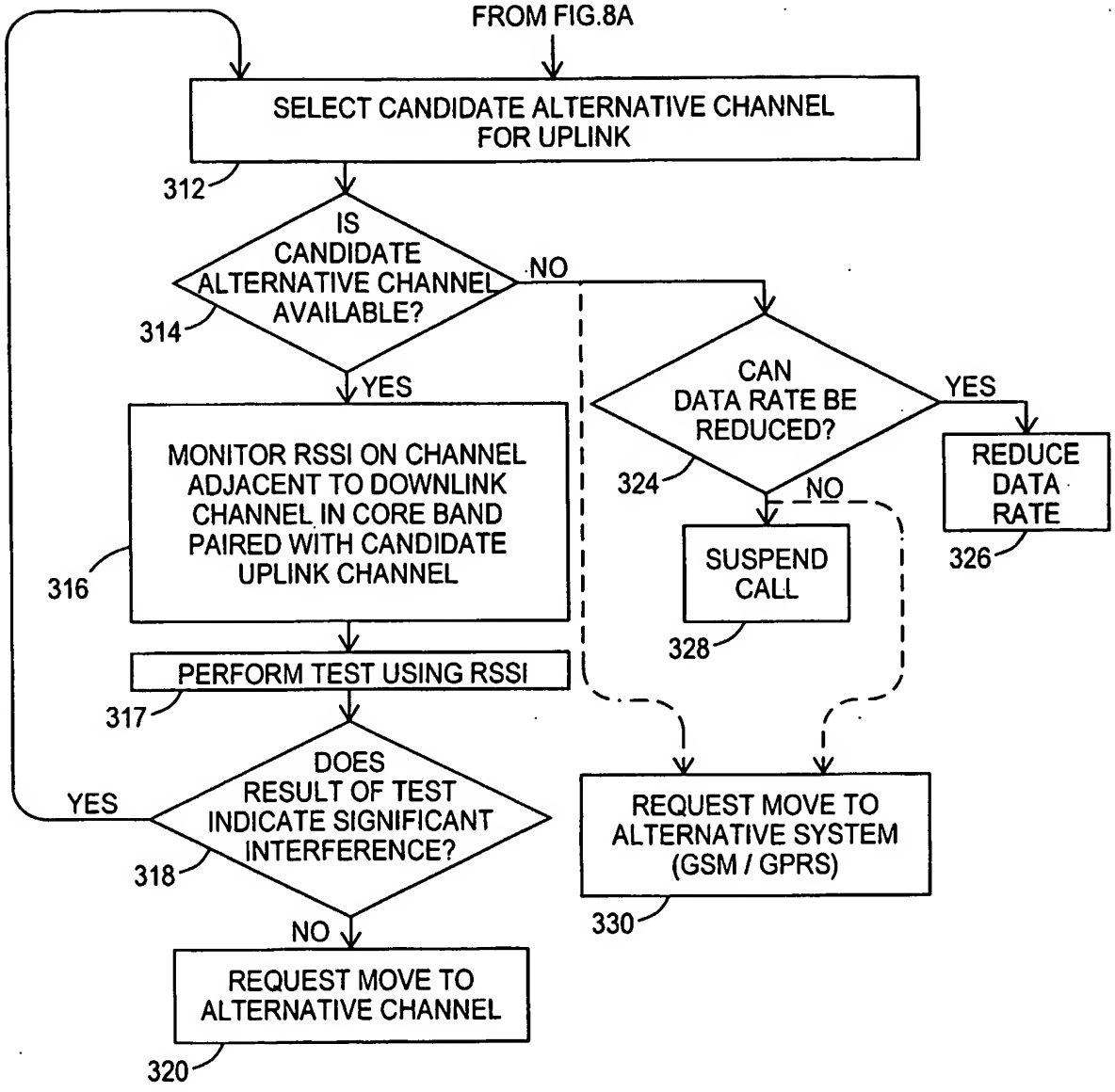
FROM FIG.8A
SELECT CANDIDATE ALTERNATIVE CHANNEL FOR UPLINK
312
IS CANDIDATE ALTERNATIVE CHANNEL AVAILABLE?
314
NO
YES
MONITOR RSSI ON CHANNEL ADJACENT TO DOWNLINK CHANNEL IN CORE BAND PAIRED WITH CANDIDATE UPLINK CHANNEL
316
PERFORM TEST USING RSSI
317
DOES RESULT OF TEST INDICATE SIGNIFICANT INTERFERENCE?
318
YES
NO
REQUEST MOVE TO ALTERNATIVE CHANNEL
320
CAN DATA RATE BE REDUCED?
324
YES
NO
REDUCE DATA RATE
326
SUSPEND CALL
328
REQUEST MOVE TO ALTERNATIVE SYSTEM (GSM / GPRS)
330

Fig.8B

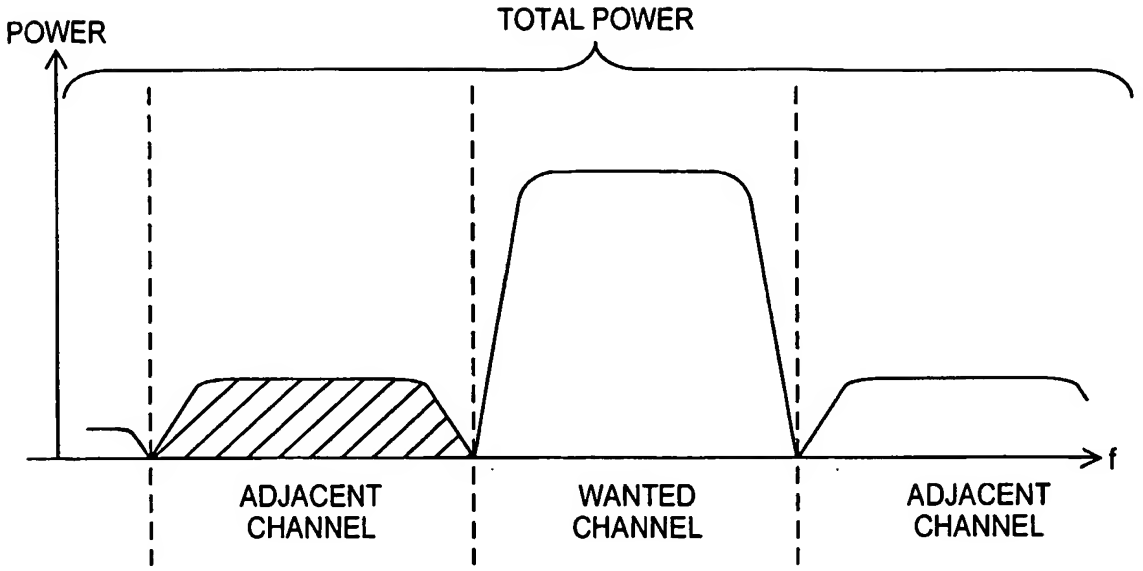
POWER
TOTAL POWER
f
ADJACENT CHANNEL
WANTED CHANNEL
ADJACENT CHANNEL

Fig.9

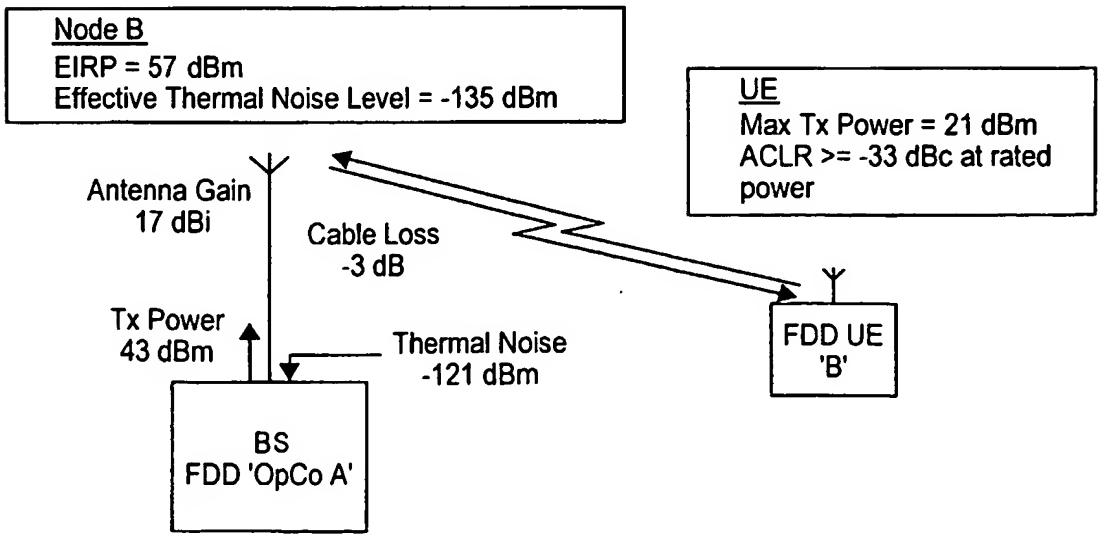
Node B
EIRP = 57 dBm
Effective Thermal Noise Level = -135 dBm
UE
Max Tx Power = 21 dBm
ACLR >= -33 dBc at rated power
Antenna Gain 17 dBi
Cable Loss -3 dB
Tx Power 43 dBm
Thermal Noise -121 dBm
FDD UE 'B'
BS FDD 'OpCo A'

Fig.10

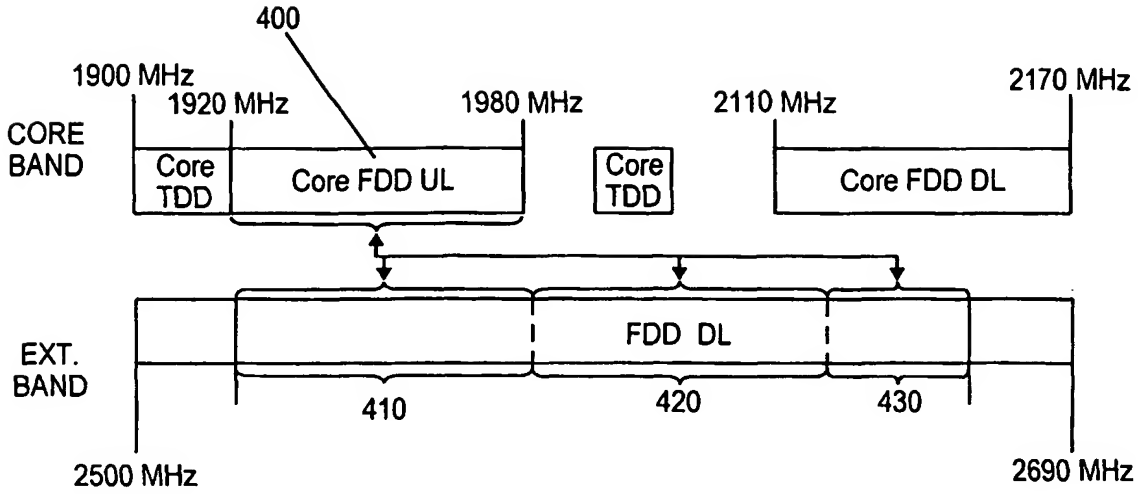
400
1900 MHz
1920 MHz
1980 MHz
2110 MHz
2170 MHz
CORE BAND
Core TDD
Core FDD UL
Core TDD
Core FDD DL
FDD DL
EXT. BAND
410
420
430
2500 MHz
2690 MHz

Fig.11

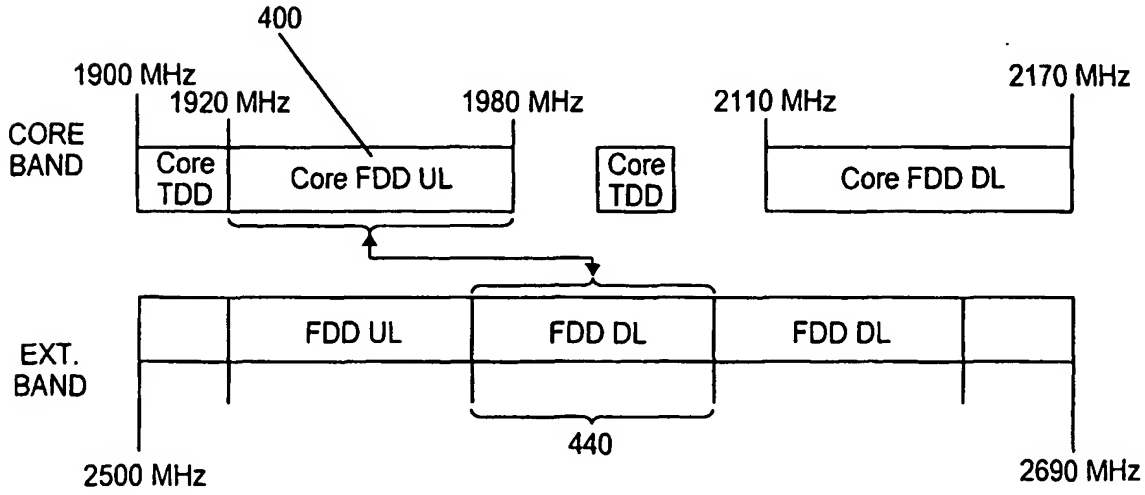
400
1900 MHz
1920 MHz
1980 MHz
2110 MHz
2170 MHz
CORE BAND
Core TDD
Core FDD UL
Core TDD
Core FDD DL
FDD UL
FDD DL
FDD DL
EXT. BAND
440
2500 MHz
2690 MHz

Fig.12

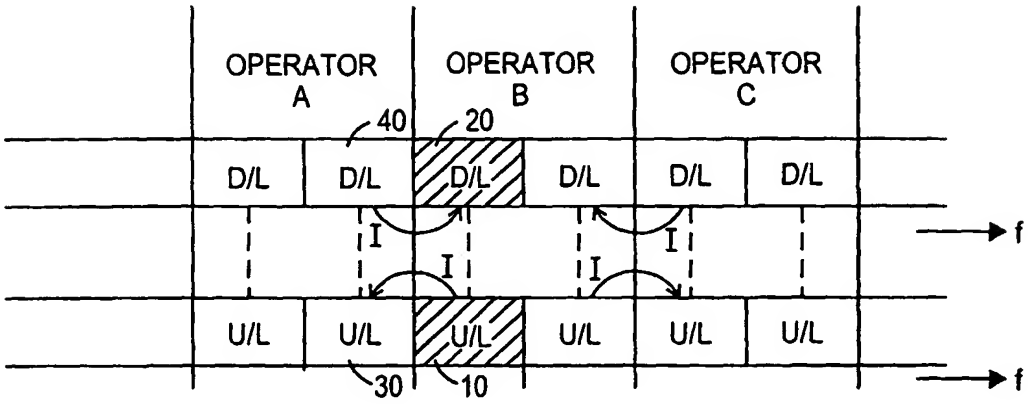
OPERATOR A
OPERATOR B
OPERATOR C
40
20
D/L
I
f
U/L
30
10

Fig.4

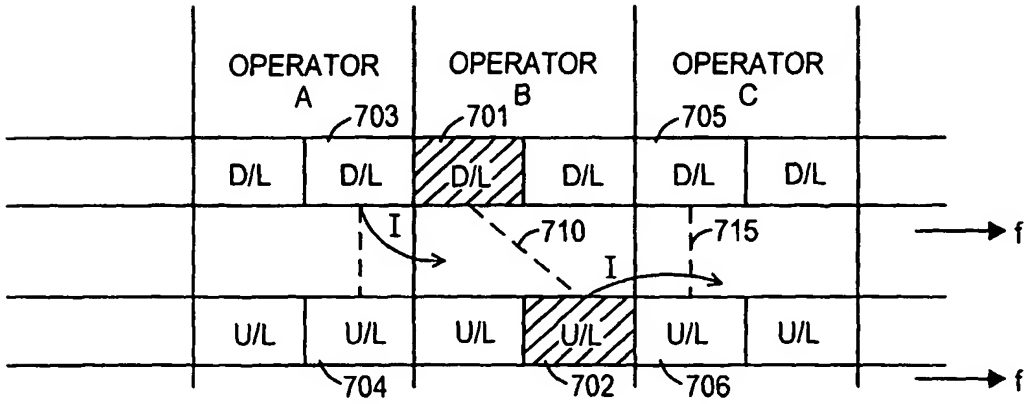
OPERATOR A
OPERATOR B
OPERATOR C
703
701
705
D/L
I
710
715
f
U/L
704
702
706

Fig.13